

NOAA

2007 National Stakeholder Forum



May 23, 2007

Closing Session Report-outs

Societal demands for climate information services

AM Panel Session

Highlights from the morning panel session

NOAA leadership/facilitation essential

Recognition of NOAA as provider of climate services

- Learn from good models (e.g., NIDIS, RISA)
- Evolution from individual efforts to a coordinated enterprise

Shared commitment to (and responsibility for) a National Climate Service:

- International
- Multi-agency
- Government at all levels
- Businesses
- NGOs
- Scientific community
- Educators
- Co-evolution of public and private sector partners in the climate enterprise
- Requirements exceed current resources

AM Panel Session

Highlights from the morning panel session

Science and information to support “coping” with a changing climate:

- Adaptation and mitigation
- Proactive planning
- Short-term needs and long-term planning
- Place-based & problem (solution) focused
- Sustained user engagement throughout
- Mechanisms for continuous evaluation of products/services

Links to other themes and resource management responsibilities

Integration – from observations to users and back again

Communication, Communication, Communication

- Educators, communications experts, media
- Accessibility, usefulness, and usability of data and science

Breakout Question 1

What are the most significant emerging societal demands for climate information (services)?

Societal needs – long term observations and thresholds for understanding climate services and value

Want NOAA to be a steward / referee/ facilitator of place-based climate trends

Education and climate literacy are at the heart of all these efforts (students, general public, and decision makers)

Breakout Question 2

What are the most significant (important) products / services NOAA is providing in support of these demands? (What does NOAA do well?)

Data: acquisition, assimilation, distribution, and stewardship (e.g., NCDC)

Participation in climate policy and programs (e.g., IPCC)

Support research and analysis

Open data – dialogue without censorship

Breakout Question 3

What should NOAA be doing new or different in response to these demands?

Identify and fill gaps in observation sources

Develop more relevant products – give people what they need

Show me the money – better much budget request with societal demands

Actively engage the public in designing/ implementing community-based planning and research

Prepare infrastructure necessary for archival access and reanalysis for climate data sets from many sources

Research and technological challenges for improving extreme weather forecasting and prediction

Question One

1. What are some of the possibilities NOAA should consider for observational systems (e.g., satellite, aircraft, buoy), high performance computing, and high resolution models to deliver improved hurricane track and intensity forecasts? How should NOAA balance investments in these key areas?

Question One

The future is hi-coupled global modeling – implement as soon as cost effective

Challenge of partnering and cost sharing capabilities and resources that generate mutual benefits – communication is key

Cost/benefits and risk should determine expenditure choices for observations systems, research, models, and human factors (risk for airplanes)

Need good real-time 3D coverage of winds and near-surface ocean conditions for hurricane research, models, and forecasts

Re-align policies / practices to maximize benefits as capabilities grow

Need to replace lost coverage of data, such as QuickSCAT

Question Two

2. What are some of the possibilities NOAA should consider for observational systems (e.g. dual pol and phased array radars, wind profilers) and information technology to display, compute and communicate improved severe thunderstorm forecasts?

Question Two

Research on optimal framework of observing, assimilating, and displaying systems must be done now, especially phased array radar (PAR) and gap filling radars

NOAA needs to take a leadership role in multi-agency effort to develop multi-mission, phased array radar

Plain language, GIS-based, web-pushed warnings available for any location

Question Three

3. What are the most significant emerging societal demands for water resource information services, and what is NOAA's distinct role in responding to those demands?

Question Three

Provide GIS compatible data feeds

Increase availability of probabilistic forecasts for decision makers

Expand inundation mapping services with GIS overlay

Provide drought data and forecasts

- Long- and short-term water resource information and projections

Question Four

4. What products should NOAA focus on in support of the Next Generation Air Transportation System (NGATS)?

Question Four

Aggressively embrace NOAA's commitment to Next Generation Air Transportation System (Next Gen)

- Create and maintain “4D Cube” weather information, including observation network and assimilation
- Establish the single authoritative source for aviation support
- Responsible for continual evolution of automation / human / implement mix
- Embrace change management
- Establish metrics and investment in training
- Secure resources to implement

Question Five

5. How should NOAA respond to new mandates at local, state, and national levels to address integrated climate-air quality management strategies?

Question Five

Ensure A/Q research results are included in global warming discussions and actions

Pursue opportunities for space-borne observation platforms to support A/Q climate issues, including NASA's GEO-CAPE

Make A/Q data available in a standardized format using NOAA-Port to disseminate

Encourage international cooperation with a focus on fine particles

Initiate public outreach education effort on A/Q and climate, including all impacts of alternative fuels

Decision support services for hazard resilient communities, commerce, and transportation

Q1: How are NOAA's products and services used to mitigate hazards?

Tools are currently used inconsistently, but this could be improved by incorporating these tools into State enforceable coastal policies.

Height modernization is used for flood mapping, land and harbor management, and other hazard applications.

Ports, water levels, and air gap and currents are used for transit decisions by ship captains and pilots.

In areas and communities where NOAA product and service base is understood and supported by local government, hazard preparation and response is most effective.

Real time information regarding conditions to advise navigation interests to take appropriate actions.

Q2: How can NOAA improve its information, training and tools to support hazard mitigation and resilience strategies for US coastal communities and commerce?

What new tools and/or expertise are needed to make coastal communities and commerce more resilient to hazards?

Guarantee national comprehensive, consistent reliable data (inputs) and forecasts (outputs) in uniform open-systems GIS format.

NOAA should focus and define efforts and capabilities -- not compete with or duplicate efforts of other agencies. The agency could provide more leadership for key NRP responsibilities.

Develop advanced decision making and risk analysis tools and procedures including available and to be available information on the inevitable uncertainties in data analysis and forecasts.

Renew commitment to satellite-based observing systems such that present capability will not be lost (no replacements are scheduled for some current capabilities).

NOAA needs to assess the needs of specific audiences and create new mechanisms to effectively reach these audiences.

Q3: What do external partners bring to the table that NOAA can leverage?

External partners can develop applications based on NOAA sciences and under-utilized data sets.

Political clout and support (both Gov't and private sector) use local knowledge of needs and political influence.

Specific expertise.

Partners complete NOAA's services by using them to make decision and execute activities that save lives and money.

NOAA could compel States receiving CZMA grants to provide recovery plans for coastal communities and/or critical coastal ecosystems as part of their CM plan approval process.

Ecosystem approaches to management in an era of changing mandates and increasing pressure on ocean and coastal resources

Ecosystem approaches to management in an era of changing mandates and increasing pressures on ocean and coastal resources

Panelists:

Stephanie Madsen NPFMC

Robert Tudor Delaware River Basin Commission

George Lapointe (Maine Department of Marine Resources)

Kacky Andrews (Coastal States Organization)

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Expanding Mandates for Ecosystems

Magnuson Stevens Fishery Conservation and Management Reauthorization Act (2007)

Offshore Aquaculture Act (introduced in the House)

Coral Reef Conservation Act Reauthorization (pending)

Reauthorization & visioning for the Coastal Zone Management Act (in process)

Other new legislation (climate impacts on ecosystems, energy development, Farm Bill, observing etc)

Other reauthorizations (MMPA, ESA?)

What We Heard from the Panel

Working through Partnerships (expanding mandates and increased capabilities of existing ones)

Working “outside the comfort zone” of existing relationships as issues become more complex

The importance of scale in ecosystem problems

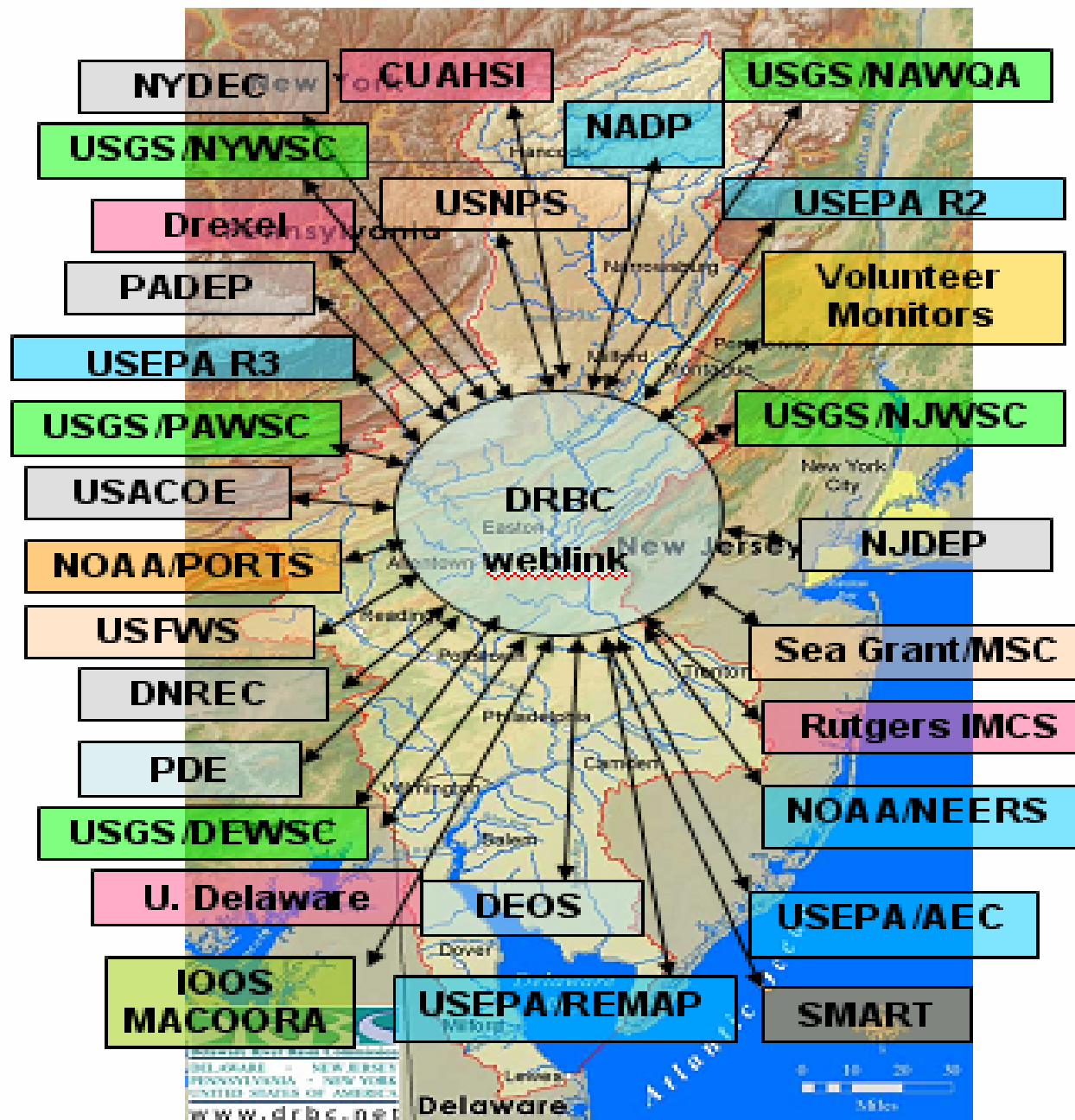
Better, more timely information tools, important to local managers & decision makers

Tools to inform ecosystem-scale decision making (e.g., social and economic valuation of ecosystem services)

Importance of a conceptual plan to address complex problems (e.g., Land-water interrelationships)

Duality of “stove pipes” (NOAA needs to better work across NOS, NMFS, etc and with other agencies but also needs to be competent within its unique mandates)

“...we need more” (can’t cannibalize current programs and weaken current authorities to address the “new”)



Overarching Questions for the Breakout Session

How can NOAA improve the effectiveness of living marine resource science & management?

How can NOAA improve the effectiveness of coastal science and management?

What mechanisms (e.g., research tools, regional partnerships, outreach) can NOAA use (or better use) to integrate its missions?

What We Heard from the Breakouts

Leadership – NOAA does a lot of things well, should set the National vision for ocean and coastal ecosystem management, critical to communicate frequently with EPA, DOI, COE, NASA, States, others

Partnerships- Strengthen existing, build a public constituency, emphasize existing action plans and partnerships. International, regional to local emphasis working at the right scale

Need national coordination of regional activities

Data & Information Services– Rescue historical (especially baselines), synthesized & disaggregated information, integrated data & web links, “Google Ocean”

Risk/Uncertainty – Ecosystem links are inherently uncertain, need to know the risks and costs of uncertainty

Climate/Ecosystem Impacts – moving from documenting change to identifying impacts and adaptations

“...you need more \$\$”!

Parting thought:

We do know what ecosystem approaches are,
and how to implement them: Evolution from existing
Institutions, authorities, and issues.

**Thanks to all the
participants...**